ON PAGE E-LO

WASHINGTON POST 6 September 1985

## FACK ANDERSON and DALE VAN ATTA

## Soviets Take Lead in Space Lasers

he superpowers' centest for military supremacy in space continues, and the Soviets appear to be substantially ahead in the latest round: laser weapons.

CIA sources have told us they ve discovered a major laser test center at krasnotzmeysk, 30 miles northeast of Moscow. Even more allowing, the facility is believed to be actually producing laser weapons.

Evidence of the priority the Soviets place on the Krasnoarmeysk weapons plant, the CIA has determined, is that it is operated by an integrated design bureau.

Ordinarily the Soviets borrow the capitalist technique of competing design bureaus for everything from tanks to balkistic missiles. They have found that the competition eventually produces better weapons—but it's too time-consuming for a top-priority program.

"The Soviets have had a research program under way since 1970 aimed at developing lasers with weapons applications," notes a top-secret CIA report.

The program includes at least a half-dozen major research and development facilities and test ranges. More than 10,000 scientists and engineers are involved.

By way of comparison, the CIA estimates that a similar U.S. laser weapons program would cost about \$1 billion a year. But the United States only began playing catch-up during the Reagan administration, with about \$600 million earmarked for laser weapons research in 1986.

One of the unique features of the Soviet laser

program is the development of a rocket-driven magnetohydrodynamic (MHD) generator, which produces 15 megawatts of short-term electricity as a firepower source for the lasers.

A secret State Department report on the MHD explains that "it generates current by passing a conducting fluid through a magnetic field." The report adds this disturbing comment:

"Their [the Soviets'] MHD work is the largest in the world and continues to grow. Power outputs already achieved exceed those in the West several fold, and both rocket power and liquid metal system inputs could have potential for military programs in high-energy lasers, charged particle beams and space-borne laser power supplies. MHD is a technology area where the Soviets clearly lead the U.S. in demonstrated capability,"

In fact, there is no counterpart device in the West.

Both the CIA and the Pentagon believe that the Soviets already have ground-based lasers that could interfere with U.S. satellites, and they estimate that by the late 1980s the Russians could have at least prototype space-based laser weapons that could incapacitate U.S. satellites.

The actual deployment of space-based lasers for antisatellite use is a tricky business, however, and the intelligence experts figure that the Soviets won't have mastered this before the 1990s.

The various reports and estimates, which accomputate with virtually every top-secret satellite photograph and analysis of it, all demonstrate that the Buck Rogers "ray gun" won't wait for Dr. Huer to come along in the 25th century.